Photo-Cross-Linkers Incorporated into G-Protein-Coupled Receptors in Mammalian Cells: A Ligand Comparison.

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Public Summary:
We demonstrate here the feasibility of using non-natural amino acids to crosslink a peptide hormone to its receptor directly in live mammalian cells. By putting the photo-crosslinking non-natural amino acids at different positions in the receptor, we determined what positions are important for the interaction between the peptide hormone and the receptor. Such information help us to understand how the receptor is activated by the hormone, and may guide us to develop therapeutics targeting the receptor.

Scientific Abstract: